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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,135	11/19/2003	Rongxin Pan	USP2293C-DRSH	9079
30265	7590	08/30/2006	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			RIELLEY, ELIZABETH A	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,135

Applicant(s)

PAN ET AL.

Examiner

Elizabeth A. Rielley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Amendment filed 6/26/06 has been entered and considered by the Examiner. Claims 1-24 have been canceled; claims 25-27 have been added. Currently, claims 25-27 are pending in the instant application.

### ***Claim Rejections - 35 USC § 103***

Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio et al (US 6437502) in view of Ge et al (US 6515433).

Nishio et al ('502) teach an illuminable unit, comprising: a light tube (18; figure 5; column 12 line 14 - column 13 line 18) having two end portions downwardly extended there from (41; figure 11; column 22 line 59 – column 24 line 49), wherein said light tube further has a light cavity containing a mercury source, which is an amalgam (amalgams are made from liquid mercury<sup>1</sup>) therein and filling with inert gas (column 12 lines 14-38), and a phosphor layer coated on an inner wall of said light tube (column 12 lines 14-38); a cathode terminal supported at one of said end portions of said light tube (cathode 45; not numbered; see figure 5); a conductor enclosure (not numbered: see figure 5) having an upper head portion sealed mounted within said

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<sup>1</sup> [http://en.wikipedia.org/wiki/Dental\\_amalgam](http://en.wikipedia.org/wiki/Dental_amalgam)

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respective end portion of said light tube in a concealed manner (see figure 5) and is coaxially received within the respective end portion of the light tube (see figure 14); wherein the conductor enclosure (see figure 5) is sealed at a bottom end of the respective end portion within an end portion of the light tube (see figures 4 and 14); the conductor enclosure has an inner gas exhausting passage communicating with said light cavity (41; figure 5; column 14 lines 26-42) in order to discharge air from the tube (column 14 lines 28-30); and a conductor wire (145; figure 14; column 28 lines 20-29) electrically extended from said cathode terminal (not numbered, see figure 14) to an exterior of said light tube (146 and 147) for electrifying said mercury source wherein the conductor wire is extended through the conductor enclosure (144) within a respective end portion of the light tube (see figure 14), such that the conductor enclosure (144) securely retains the conductor wire within the respective end portion of the light tube to electrically connect to the electrode terminal (not numbered; see figure 14).

Nishio et al ('502) are silent regarding the limitations of the light tube having a spiral-shaped light body, in which a conductor enclosure has a length approximately equal to a length of each end portion of the light tube. However, one skilled in the art would reasonably contemplate modifying the device of Nishio et al ('502) to include the claimed light tube design, as an obvious matter of design engineering as evidenced by Ge et al ('433; see figure 20; conductor enclosure 212 is the approximate size of the ends of spiral tube 1'; column 12 lines 32-39). Applicant's claimed design does not provide unexpected results that are not within the teaching applied, since both light tubes disclosed in Nishio and Ge as well as the light tube disclose by the Applicant perform the same function of housing a gas for a fluorescent lamp. Thus, it would have been obvious at the time of the invention to one of ordinary skill in the art to

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incorporate the design of the fluorescent lamp of Ge with the fluorescent lamp as taught by Nishio as a matter of design choice.

In response to the limitation that the conductor enclosure is mounted in as way so as to substantially reduce an overall height of the illuminable unit, the Examiner notes that this is an intended use limitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

### ***Response to Arguments***

Applicant's arguments with respect to claims 25-27 have been considered but are moot in view of the new ground(s) of rejection.

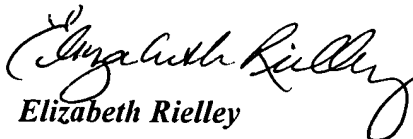
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



*Elizabeth Rielley*

**Examiner**  
**Art Unit 2879**



**MARICELI SANTIAGO**  
**PRIMARY EXAMINER**